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(71) Applicant (for all designated States except US): **DOOSAN DND CO., LTD** [KR/KR]; 397-2 Moknae-Dong, Danwon-Gu, Ansan-City, Kyunggi-Do425-100 (KR).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **LEE, Jung, Hoon** [KR/KR]; 2004 Ho 214 Dong Hwanggol Maeul Hankook Apt., 1054-3 Youngtong-Dong Youngtong-Gu, Suwon-City, Kyunggi-do443-744 (KR).

(74) Agent: **KO, Kwang-Ok**; 3F Shinwon B/d, 648-15 Yeoksam-Dong Gangnam-Gu, Seoul 135-911 (KR).

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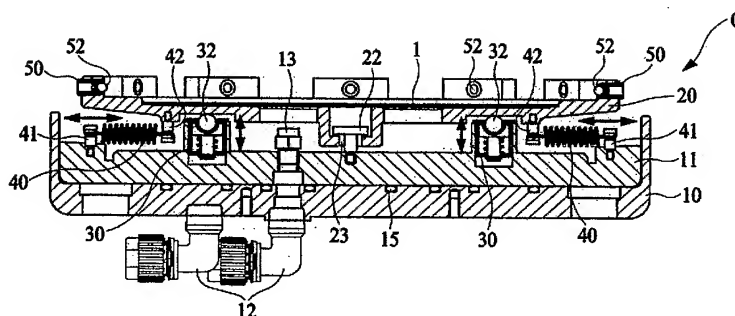
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(54) Title: **LOADING DEVICE FOR CHEMICAL MECHANICAL POLISHER OF SEMICONDUCTOR WAFER**



(57) Abstract: The present invention related to a loading device for a chemical mechanical polisher of semiconductor wafers comprising: a loading cup on wherein a cup plate is installed in a cup-shaped bath, a loading plate for receiving wafers sits on the cup plate, and a plurality of vertical damping devices lie between the cup plate and the loading plate so as for the loading plate to be damped in a vertical direction; a driving axis for a right and left pivot movement and an ascending and descending movement of the loading cup between a platen of the chemical mechanical polisher and a spindle; and an arm connecting the loading cup to the driving axis; wherein a plurality of horizontal damping devices are positioned with a constant angle in a radial direction along a bottom surface of the loading plate from its center in order for a polishing carrier head mounted on the spindle and the loading plate to be detachable after being calibrated to a normal position by shaking the loading plate finely in a horizontal direction within the limit of a certain driving tolerance, based on a position deviation between the polishing carrier head and the loading plate, when loading and unloading wafers therebetween; and wherein both ends of each horizontal damping device are fixed to the cup plate and the loading plate, respectively. With the structure of the loading device, the present invention accomplishes an advantage that the loading device can be actively adapted for a position deviation between the polishing carrier head and the loading cup of the loading device, caused during the process of loading and unloading wafers.



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